

REMARKS

This amendment responds to the official action mailed May 28, 2010 and is accompanied by a petition for extension under 37 C.F.R. §1.136(a) (two months). The required extension fee is being paid by EFS charge to a deposit account.

Claims 1, 2, 8, 9 and 32 were rejected in the official action as anticipated by US 5,111,994 – Gonzalez. Claims 12, 33 and 34 were rejected as obvious from Gonzalez. Claims 4-6 and 15-31 were withdrawn from consideration as not elected after a restriction requirement earlier in the case but the claims remain pending in anticipation of the allowance of a generic claim.

Claim 1 has been amended to further distinguish from Gonzalez by the addition of structural and functional aspects disclosed in applicant's description at page six, lines 16-23 (corresponding to paragraph [0071] as published). No new matter is presented. These aspects now positively defined in claim 1 are not disclosed or suggested by Gonzalez, which is structured to operate in a wholly different way. Claim 1 is an independent claim and the remaining claims depend directly or indirectly from claim 1. Therefore, all the pending claims are allowable as now presented.

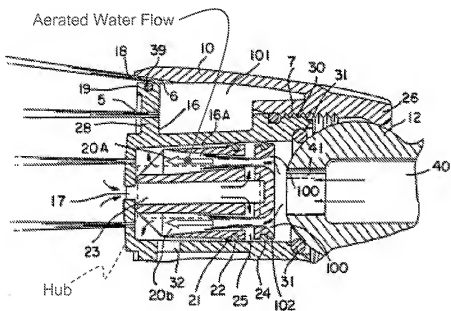
According to applicant's disclosure and as seen, for example, in Fig. 7, water passing through apertures 63 in disc 60 flows along the lateral outside surface of a hub 64, down to the base 67 of hub 64, encountering along the hub a deflector with a surface 68 expanding or widening, proceeding in the direction of water flow. The deflector forms a truncated cone and directs the water jets outwardly.

US 5,111,994 – Gonzalez does not disclose or suggest the invention defined by claim 1 as a whole. Statements in the official action attempting to read claim 1 on Gonzalez inconsistent with one another and erroneous. Furthermore, claim 1 has been amended to further distinguish from the prior art.

In the official action, Gonzalez is said to disclose an aerator 14 with a hub, interpreted in the official action to be the section from the middle of aerator 14 to flange 102. Air intake is made through axial passage 23. Aerated water flows "along

a lateral outside." Applicant's claim 1 recites that the water flows along a lateral outside surface of the hub.

The official action states that the aerated water that flows along a lateral outside flows along surface 16A, but this is clearly not disclosed in Gonzalez and would not be possible. Two O-ring seals 22, 24 affirmatively prevent water from flowing along surface 16A. As seen in Gonzalez' Fig. 1, one might construe the radially inner sleeve part of the aerator 14 to be a hub but the entire Gonzalez flow booster 14 cannot be a hub as claimed because water cannot possibly flow over a lateral outside surface of part 14.



The official action goes on to say that the exterior of "the hub" has essentially axially arranged guides 16A and a deflector 22. As already noted, if those parts in Gonzalez are "the hub," then water does not flow over the Gonzalez hub. There is no basis to construe 16A as a guide because no water flows there. There is no basis to construe parts 22 or 24 as deflectors because they are O-ring seals, i.e., water stops, not flow deflectors. In short, the application of claim 1 to Gonzalez does not hold water.

The foregoing argument was made earlier in this application and although the same statements have been repeated in the latest official action, no reply has been articulated by the Examiner. Applicant maintains that these distinctions are dispositive. The rejections under 35 USC §§102 and 103 are without logical basis. Claim 1 is not anticipated by Gonzalez. Inasmuch as Gonzalez does not involve structures or functions that are even similar to the subject matter of claim 1, one cannot properly assert that Gonzalez alone, or as modified by the level of ordinary skill, would meet the subject matter defined in claim 1. Applicant requests that claim 1 and the claims depending from claim 1 be allowed.

Moreover, applicant has now amended claim 1 to further define over the Gonzalez reference. As provided by claim 1 as amended, a deflector is arranged on a base of the hub, and has a surface expanding along a water flow direction. The deflector forms a truncated cone guiding the discrete aerated jets outwardly from the hub toward the apertures from which the jets exit the jet disk. These aspects are not met by any interpretation of Gonzalez' structures, including the erroneous interpretation advanced in the official action.

If one construes surface 16A as the exterior of a hub in Gonzalez, as asserted in the official action, there is no flow of aerated water over the surface, as claimed. Surface 16A has no essentially axially arranged guides for the water (which water is sealed away from that area by the O-rings). There is no deflector along surface 16A that expands and/or forms a truncated cone. There is no aspect associated with surface 16A that might direct jets outwardly under any circumstances because the dead-end wall forms a junction with surface 16A and turns the flow of water backwards or into turbulence. Thus, as the hub is construed according to the official action, Gonzalez fails to meet any of these positively claimed aspects. Nor does Gonzalez operate in a manner remotely similar to the claimed invention. There is no logical basis to believe that altering Gonzales would be obvious.

If instead, one construes the inner sleeve as a hub in Gonzalez, there is a flow of aerated water over a surface (namely over the inner surfaces of the venturi passage shown in cross-section in Gonzalez' Fig. 3). But there are no essentially

axially arranged guides. There is no deflector that expands along the direction of flow. The surface does not form a truncated cone. No jets are directed outwardly and instead are applied to the dead-end wall in a zone of turbulence. Gonzalez fails to meet these positively claimed aspects. Gonzalez is neither structured nor capable of operation in a manner that is similar to the claimed invention.

According to the official action, a theoretical section from flange 21 to flange 102 of Gonzalez' aerator 14 is a hub as claimed by applicant. The seatings for O-rings 22 and 24 in Gonzalez are said to be axially arranged guides. But O-rings 22 are not on a surface over which water flows. The O-rings are circumferential and not axially (longitudinally) arranged. Gonzalez does not meet the claimed invention.

In Gonzalez, air flows into central passage 17 (see Gonzalez Fig. 2), radially outwardly through the passage at openings 25 and is entrained with air flowing from water line 100 through the venturi structures. There is no disclosure or suggestion of any structure on the surface over which aerated water flows that might be construed to be an axially arranged guide or a deflector arranged on a base of the hub, or any means for guiding discrete jets outwardly toward apertures from which the jets exit. The venturi passages terminate in turbulent mixing chambers that must eliminate any discrete jets. Gonzalez does not meet the claimed invention.

A venturi generally is defined by a narrowing of a flow path that widens proceeding downstream, which is the mechanism by which Gonzalez sucks in air to ventilate the flow. Due to the widening of the venturi flow paths, Gonzalez's central sleeve is missing an expanding or widening surface of a truncated cone guiding discrete jets outwardly as claimed. In fact the opposite condition is true: the surface in Gonzalez narrows. The central sleeve becomes narrower, not wider, proceeding in the direction of flow up to the dead-end turbulent chambers. This aspect is plain in the drawings. Gonzalez does not meet the claimed invention.

The various Gonzalez jet orifices are all fed from the turbulent chamber. A "U-shaped" flow path is explicitly mentioned by Gonzalez at col. 2, line 9, and is evident in the drawings. A turbulent and U-shaped flow occurs in Gonzalez, where the flow is directed into the dead-end chambers, and but for a limited number of radially inner

spray orifices 5, the U-shaped flow taught by Gonzalez turns backwards toward openings 32, to fill the radially outer volumes and emerge at spray orifices 18. Gonzalez does not meet the claimed invention.

Claim 1 recites aspects that cannot be found in cited US Patent 5,111,994 - Gonzalez or in the other citations of record. The claimed invention is so structurally and functionally different from Gonzalez that no chain of obvious modifications leading from the prior art to the invention can be envisioned. The present official action and the previous official actions lack an articulation of reasons logically justifying a rejection under 35 USC §102 or §103. Even when construing the claims as broadly as possible consistent with applicant's specification, there is no basis of record to justify a rejection.

Claim 1 is properly patentable over the prior art of record. Claims 2, 8, 9, 12 and 32-34 are properly allowable at least due to their dependence from claim 1. Applicant requests that these claims be allowed.

Applicant requests together with allowance of claim 1, that nonelected claims 4-6 and 15-31, which also depend on claim 1, be rejoined and allowed.

Allowance is appropriate and is hereby requested.

Respectfully submitted,

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